



The National Surveillance Monitoring Programme for Residues in Farmed Fish

March 2015



Marine Institute
Foras na Mara



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MARINE ENVIRONMENT AND FOOD SAFETY SERVICES

WHAT IS THE RESIDUES DIRECTIVE?

All European Member States have a responsibility to monitor the use of veterinary medicines in food producing animals, to ensure that produce from these animals do not contain residues that could be harmful to consumers. It is a requirement to implement surveillance monitoring in accordance with the Residues Directive (Directive 96/23/EC) and to have in place national plans (National Residues Control Plan-NRCP) for the monitoring of certain chemical substances and residues in a range of food producing species and products e.g. cattle, pigs, sheep, farmed finfish.

The National Residues Control Plan for Aquaculture in Ireland is specifically for farmed finfish and forms part of the overall National Residue Control Plan.

WHO IMPLEMENTS THE DIRECTIVE IN IRELAND?

Department of Agriculture Food and Marine (DAFM)

Implements the overall residues controls in Ireland

Food Safety Authority of Ireland (FSAI)

Coordinates the activities of the departments and agencies involved

Sea Fisheries Protection Authority (SFPA)

Responsible for ensuring compliance with the Directive for finfish aquaculture

Marine Institute

Implements the surveillance monitoring programme for farmed fish on behalf of SFPA and is the official laboratory for residue sampling and analysis

DAFM Veterinary Inspectors

Carries out routine on-farm inspections to verify compliance with various regulations including fish health, animal remedies, feedstuffs, etc.



WHAT RESIDUES/SUBSTANCES ARE TARGETED?

As with other farmed animals, farmed finfish can be subject to disease and infestation which can have animal welfare, environmental and commercial implications. Therefore, authorised veterinary medicines and treatments are in place to control disease and infestation as part of health control plans e.g. antibacterial and antiparasitic treatments.

Testing is very comprehensive, covering the following broad categories:

Category	Details
Banned	These compounds should not be present as no safe limit can be set for their residue e.g. steroids, chloramphenicol, nitroimidazoles
Authorised	Authorised medicines which may be used in aquaculture and should be <u>below statutory limit</u> (i.e. Maximum Residue Limit – MRL*) e.g. Sea lice treatments: emamectin, deltamethrin
Unauthorised	These compounds should <u>not</u> be present as these treatments should <u>not be used</u> in aquaculture e.g. malachite green
Environmental contaminants	Certain contaminants can be introduced inadvertently which may accumulate in fish e.g. polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), heavy metals

**MRL is the maximum concentration allowable in the edible portion of the animal which should not be exceeded at the time of harvest.*

WHAT STANDARDS DO THE LABORATORIES WORK TO?

All analytical methods used in the NRCP are accredited to ISO17025. This is the international standard that ensures analytical methods are fit for purpose. Testing as part of the NRCP is carried out in-house in the Marine Institute and also by approved subcontract laboratories. The Institute is subject to a range of audits including an annual Irish National Accreditation Board (INAB) audit in relation to ISO17025.

WHAT ARE THE OBJECTIVES OF THE PROGRAMME?

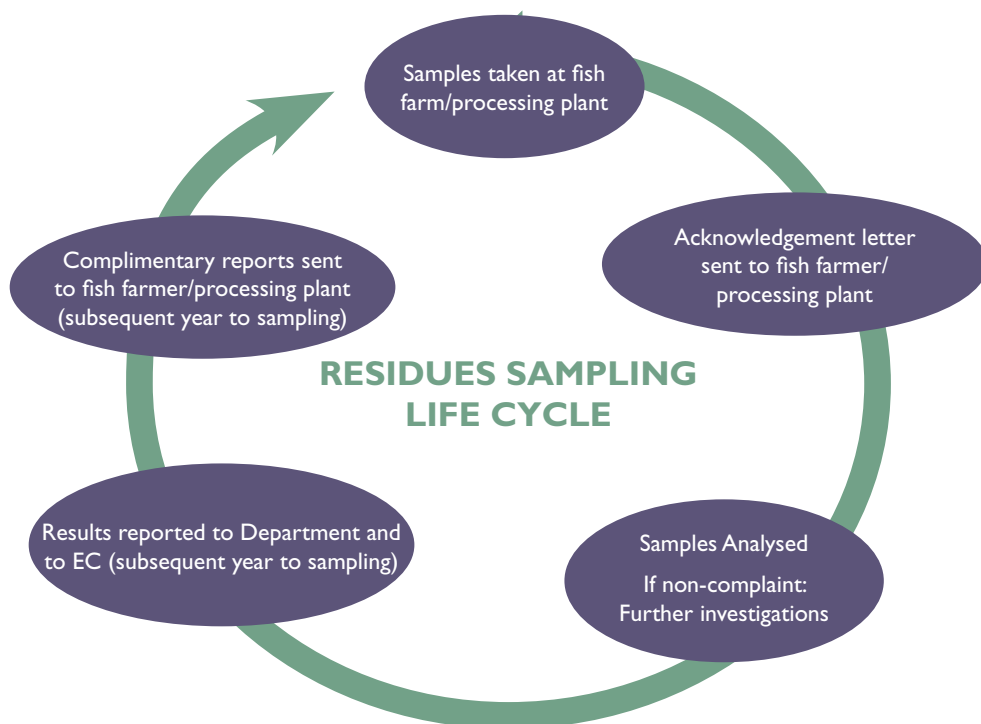
- 🐟 To ensure that farmed fish are fit for human consumption and do not contain:
 - banned/unauthorised substances at any stage of production
 - substances exceeding their MRL when ready for the market
- 🐟 To promote good practice in aquaculture with respect to the use of therapeutic treatments

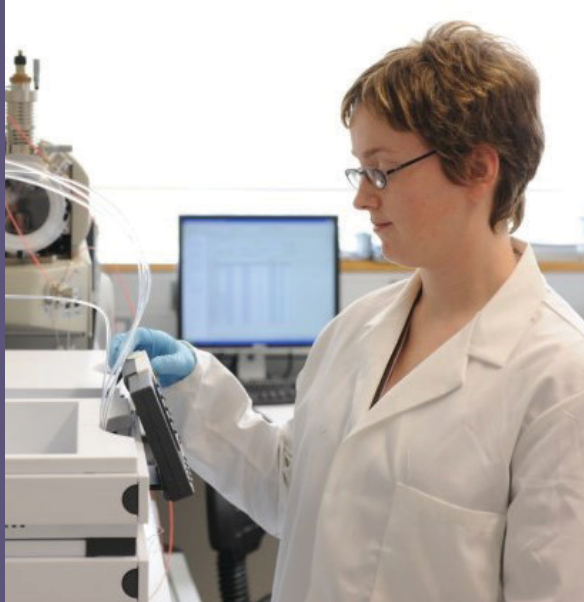
Indirectly, the 100% compliance rate (i.e. no positive results) of the aquaculture sector in recent years, has the added benefit of supporting the marketability of Irish farmed fish, by demonstrating compliance to good practice in the industry and providing customer reassurance of a safe product.

HOW IS THE WORK CARRIED OUT?

An annual plan (NRCP) setting out the sampling and testing regime for the coming year is prepared and approved by the European Commission (EC). In line with the NRCP for aquaculture, relevant farmed fish species are sampled by Marine Institute officers authorised under the Animal Remedies Act, 1993.

Sampling: Sampling occurs throughout the year and may occur in processing plants (harvest) or on-farm at any stage of production. The Institute ensures that sampling is unforeseen, unexpected and without prior warning. A sample may be an individual fish or a number of fish which are pooled; typically multiple samples are collected during each sampling event. A strict chain of custody for samples is maintained.





WHAT HAPPENS IF THERE IS A POSITIVE RESULT?

Directive 96/23/EC requires that following any positive test results (i.e. detection of banned/unauthorised substances or a result in excess of the MRL) the relevant samples undergo confirmatory testing according to EU specifications. Confirmed positive results are reported as **non-compliant**.

If a sample is determined as **non-compliant** following confirmatory testing, the relevant agencies are notified of the test results. The SFPA are responsible for initiating follow-up actions with the support of DAFM/Veterinary Inspectors, FSAI and the Marine Institute. Follow up actions may include additional investigations including unannounced visits to determine the cause and extent of non-compliance and may result in prosecution.

Samples are deemed **compliant** if authorised compounds do not exceed the MRLs and banned/unauthorised substances are not detected. MRLs should not be exceeded if good husbandry practices are in place and the withdrawal periods are adhered to i.e. the animal is not slaughtered for a set period of time after treatment.

WHO ARE THESE RESULTS REPORTED TO?

EC report: DAFM consolidates the results for the entire NRCP and submits an annual compliance summary to the EC prior to the 31st March subsequent to the calendar monitoring year e.g. results of 2013 samples reported in 2014.

Department report: A detailed annual report on national monitoring of farmed fish is prepared by the Marine Institute for DAFM, SFPA and FSAI.

Fish farmer report: The Marine Institute provides courtesy test reports to the relevant farmer/companies detailing the results of their samples during the year. This occurs in the third quarter of the subsequent calendar year.

WHAT ARE THE FARMERS OBLIGATIONS?

Farmers are obliged to:

- 🐟 ensure their fish farms are in line with national and EU legislation and best practice guidelines
- 🐟 provide access to all facilities necessary for sample collection by authorised officers/inspectors
- 🐟 provide accurate information about farm practices to authorised officers/inspectors



WHERE CAN I GET MORE INFORMATION?

The National Control Plan for Ireland (2012 – 2016):

<http://www.agriculture.gov.ie/media/migration/publications/2012/MANCP20122016.pdf>

Marine Institute pages on residues, aquaculture and fish health: www.marine.ie

FSAI : www.fsai.ie SFPA: www.sfpa.ie

Department of Agriculture, Food and the Marine: www.agriculture.gov.ie

Marine Institute Residues Programme email contact: residues@marine.ie



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